Forest Service
U.S. DEPARTMENT OF AGRICULTURE

FS-1213 | March 2023

MOON TREE INFORMATION FOR APPLICANTS: PLANTING AND CARE

The Girl Scouts of America planted this Moon Tree, a sycamore, in 1976 in Lincoln State Park, IN. NASA photo by Dave Williams.

CHOOSING A POTENTIAL PLANTING SITE

Inspect your proposed planting area. Make sure it provides plenty of room for the Moon Tree to grow without restrictions. Envision the tree's canopy growing up and the roots growing down and out. Trees can reach more than 100 feet (ft) in height. Tree roots can grow 2–30 ft down and extend as wide or wider than their canopy. Key structural roots often extend more than 6 ft in width from the trunk.

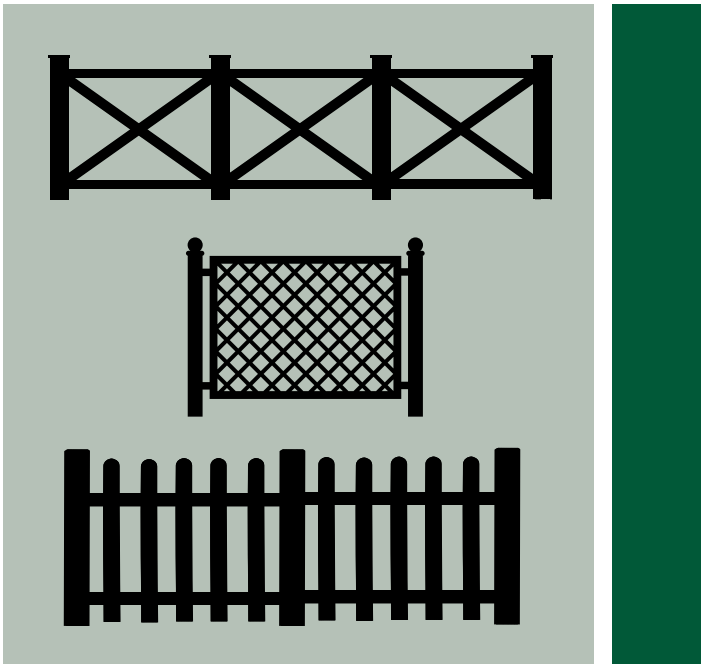
Trees that grow too close to powerlines, buildings, or sidewalks/driveways could create a safety hazard or result in costly maintenance issues. Please review your proposed area for these concerns:

- **Look up:** Ensure the tree will not grow upward into any powerlines or buildings.
- **Look down:** Ensure the immediate area is free of buried waterlines and other utilities that growing tree roots could damage. Check to make sure ongoing site maintenance will not damage the tree's roots. Avoid planting near sidewalks, driveways, or other impermeable structures that would interfere with tree growth or could be damaged as the tree roots develop. Confirm safe planting for your Moon Tree by calling your local utilities or 811 (the national call-before-you-dig phone number).
- **Look underneath:** Once you confirm no underground utilities are present, dig a hole and confirm your soil is of good quality. For example, soil should not be contaminated with old construction waste, waterlogged during the winter and spring, or have limited depth to bedrock (i.e., a solid layer of rock). Your local County Extension Agent can help with this evaluation.
- **Look around:** How close to structure(s) will your Moon Tree be? Your Moon Tree should ideally be planted at least 30 ft or more away from buildings. Consider your location and how much sun the Moon Tree will receive. Sunny areas are better than shady locations.

A tree's root system can be very wide. Make sure to plant your tree with enough space to allow root growth over time, without damaging other objects or structures.

SHORT-TERM CARE CONSIDERATIONS (YEARS 0–5)

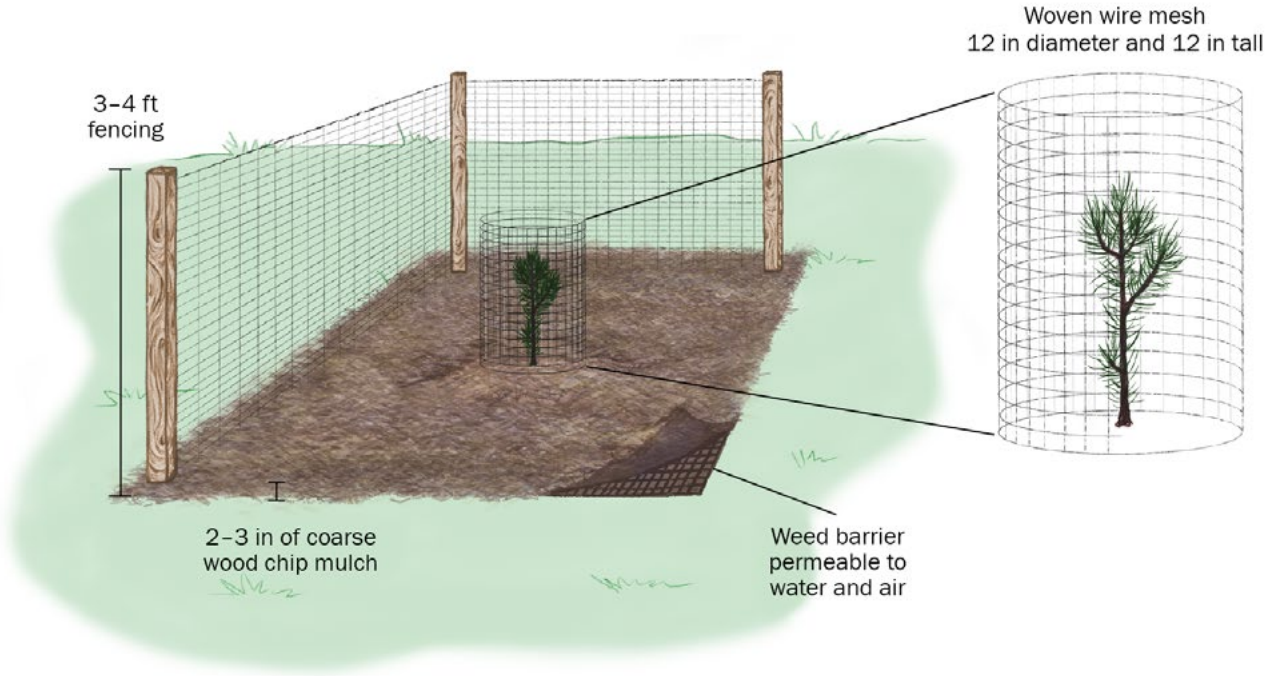
- **Seedling shipping size:** Moon Trees will be shipped as small seedlings (around 10 to 48 inches tall depending on species). Moon Tree species will include Douglas-fir, loblolly pine, sweetgum, sycamore, and giant sequoia. The table on the last page has information regarding potential tree species each region or State may receive, as well as seedling size. Note that these species can often be successfully grown as a landscape tree or arboretum specimen outside their native range.
- **Seedling arrival:** Selected Moon Tree stewards will receive updates regarding their seedling's arrival timeframe (which will vary depending on tree species), individual tree growth, and planting location. They will also receive an after-planting care guide.
- **Seedling planting timeframe:** Trees should be planted as soon as possible upon arrival. If planting is delayed more than a day or two after delivery, store the seedling in a cool location. Refrigerated storage is best, especially if planting is delayed more than a week. Depending on seedling size, you may need a walk-in refrigerator.
- **Pruning:** Hardwood species (sweetgum and sycamore) may require simple, but annual, maintenance pruning during the first 2 to 5 years to ensure a healthy form. A pruning guide will be sent to assist with these efforts.
- **Seedling protection:** Young Moon Trees will require protection from animals, people, weeds, and other potential hazards. Ideally, seedlings should have the following:
  - Perimeter Fence (exterior fencing for the entire Moon Tree planting area):
    - Purpose: Prevent accidental tree damage from things such as lawn maintenance equipment or playing children.
    - Placement: At least 3 feet from the Moon Tree.
    - Height: 4 feet tall (location with browsing deer, elk, or moose may require taller fencing)
    - Materials: Could be constructed from a variety of materials such as wire, wood, or vinyl, but must be porous enough to allow sunlight to reach the tree. Fences made of wood, vinyl, metal, or a combination of all three will work. Below are some examples.



  - Mesh Cage (interior open-topped cage directly around the Moon Tree seedling):
    - Purpose: Prevent damage from animals such as rabbits and mice.
    - Placement: Surround the seedling with a 12- to 18-inch diameter cylinder.
    - Height: 12 to 18 inches tall.
    - Materials: Should be constructed of 0.5-inch woven wire mesh or similar. A wooden or metal stake can be used to keep this cylindrical cage in place. Burying the bottom 2 or 3 inches of the cylinder can further protect the tree from burrowing pests.

Your completed protection could look something like the following example. It may vary based upon the type of perimeter fence chosen.

You may need to fundraise or work with local businesses to secure the materials needed for these protective items.



LONG-TERM CARE CONSIDERATIONS (YEARS 5+)

Think about long-term care and how seasons will impact the tree.

Trees produce leaves, fruits, branches, and/or sap that fall. Consider where these items will land and resulting difficulties (for instance, sap falling onto cars).

Think about plans for the proposed planting location. Will a playset, shed, small building, or anything else be added that would disrupt your Moon Tree's growth?

Keep in mind that Moon Tree species can live for decades (and the giant sequoia can live for thousands of years). How will your tree be nurtured for the long term?

FINDING EXPERT SUPPORT

Many organizations can help you care for trees and answer questions regarding tree health and care. It may be helpful to research organizations in your area so that you know who to contact if you are selected to receive a tree. Potential organizations include:

- County Cooperative Extension Office, which often run programs such as Master Gardeners (in the drop down boxes search for your State and select *Extension* in the "Type" field)
- State universities and local colleges that offer forestry degrees
- Local arborist (local arborists usually work for a company and may charge a fee for their services)
- State forestry agency
- Local USDA Forest Service Office

SPECIES OF MOON TREE AND THEIR NATIVE RANGES

Species	Region/State(s)	Potential Seedling Height
Douglas-fir	Western United States, including AZ, northern CA, CO, ID, MT, NM, NV, OR, SD, UT, WA, and WY	10–18 inches
Loblolly pine	Southeastern United States, including AL, DE, FL, GA, MD, MS, NC, SC, TX, and VA	10–18 inches
Sweetgum	Southeastern United States, including AL, AR, DE, FL, GA, IL, IN, KY, LA, MD, MS, NC, NJ, OH, SC, TN, TX, VA, and WV	24–48 inches
Sycamore	Eastern United States, including New England and the eastern parts of NE, OK, and TX	24–48 inches
Giant sequoia	West slope of the Sierra Nevada in CA	10–18 inches

Remember that with proper care, these trees can be grown outside their native ranges. If selected to receive a Moon Tree, you will also receive tree-specific planting and care instructions.

Left: A Douglas-fir Moon Tree planted at Oregon State University's College of Forestry, taken in 2010.
Below: The same tree, planted as a seedling in 1976.
Oregon State University photos courtesy of Edward Jensen.

USDA is an equal opportunity lender, provider and employer.